

***In the Claims***

The status of claims in the case is as follows:

1        1.     [Currently amended] A system for downloading security  
2        context elements that govern execution of agents,  
3        comprising:

4            a list of identities of users authorized to execute  
5            said agents;

6            downloadable cross certificates for verifying  
7            electronic signatures;

8            signed agents in applications including signatory name  
9            and corresponding electronic signature;

10           agent execution code and agent management services  
11           responsive to said cross certificates and said  
12           electronic signature for activating said signed agents.

1        2.     [Currently amended] A system for downloading security  
2        context elements that govern execution of downloadable and

3       distributable agents, comprising:

4           a restricted agent list store for storing names of user  
5           identities of users authorized to execute restricted  
6           agents;

7           an unrestricted agent list store for storing names of  
8           user identities of users authorized to execute  
9           unrestricted agents;

10          downloadable cross certificates for use in verifying  
11          electronic signatures of names in said list stores;

12          replicable agents in applications containing  
13          signatures specifying name of signatory and  
14          corresponding electronic signature for comparison with  
15          said downloadable cross certificates;

16          agent execution code and agent management services for  
17          activating agents dependent upon successful comparison  
18          of signatures to cross certificates.

1       3.   [Currently amended] A server system for preparing  
2       security context elements for distribution to clients,

3 comprising:

4 application code;

5 agent code referenced by said application code and  
6 including signatures specifying name and corresponding  
7 electronic signature of signatories authorized to use  
8 said agent code;

9 a group list store for storing names of authorized  
10 signatories;

11 agent execution code and agent management services for  
12 activating agents dependent upon successful comparison  
13 of signatures to cross certificates; and

14 a downloadable cross certificate store for storing  
15 cross certificates for each user or organization listed  
16 in said group list store and selected for downloading.

1 4. [Currently amended] A client system for using security  
2 context elements distributed from a server with respect to  
3 downloadable application code, comprising:

4 a client side rendition of a server application using a  
5 signed agent;

6 said signed agent including signatures specifying name  
7 and corresponding electronic signature of signatories  
8 authorized to use said agent code;

9 a group list store for storing names of signatories;

10 a cross certificate store for storing certificates for  
11 signatories in said group list store;

12 agent execution code and agent management services for  
13 activating said signed agent dependent upon successful  
14 comparison of signatures to cross certificates.

1 5. [Original] The client system of claim 4, further  
2 comprising:

3 said agent execution code being responsive to scheduled  
4 or on-demand access to said signed agent for first  
5 accessing said server to update said group list store  
6 and said cross certificate store.

1       6.    [Original]   The client system of claim 5, further  
2           comprising:

3           said group list store storing the union of names of  
4           signatories authorized to execute agents referenced by  
5           applications downloadable from a plurality of servers.

1       7.    [Original]   The client system of claim 6, further  
2           comprising:

3           said group list store comprising a restricted group  
4           store and an unrestricted group store.

1       8.    [Original]   The client system of claim 7, further  
2           comprising:

3           said agent execution code being operable responsive to  
4           authentication of said signature in said signed agent  
5           for determining the execution level allowed and being  
6           operable responsive to failure of authentication of  
7           said signature for preventing execution of said agent  
8           code.

1       9.    [Currently amended]   A method for governing execution

2 of downloadable and distributable signed agents  
3 characterized by security context elements, comprising the  
4 steps of:

5 determining that said signed agent is scheduled or  
6 selected for execution;

7 validating a signature in said signed agent against a  
8 store of downloadable cross certificates; and

9 activating agent management services for enabling  
10 execution of ~~executing~~ said signed agent only  
11 responsive to validation of said signature.

1 10. [Original] The method of claim 9, further comprising  
2 the steps of:

3 replicating from a first server an application  
4 referencing said signed agent; and

5 responsive to determining that said signed agent is  
6 scheduled or selected for execution, accessing said  
7 first server to update said store of downloadable cross  
8 certificates and thereafter validating said signature.

1       11.   [Original]   The method of claim 10, further comprising  
2           the steps of:

3           replicating from a second server a second application  
4           referencing a second signed agent;

5           maintaining a unionized group list store of names of  
6           signatories authorized to execute signed lists; and

7           responsive to determining that either said signed agent  
8           or said second signed agent is scheduled or selected  
9           for execution, first accessing the said first server or  
10          said second server from which said scheduled or  
11          selected agent was downloaded to update said unionized  
12          group list store.

1       12.   [Currently amended]   A program storage device readable  
2       by a machine, tangibly embodying a program of instructions  
3       executable by a machine to perform method steps for  
4       governing execution of downloadable and distributable signed  
5       agents characterized by security context elements, said  
6       method steps comprising:

7           determining that said signed agent is scheduled or  
8           selected for execution;

9           validating a signature in said signed agent against a  
10          store of downloadable cross certificates; and

11          activating agent management services for enabling  
12          execution of ~~executing~~ said signed agent only  
13          responsive to validation of said signature.

1       13. [Original] The program storage device of claim 12,  
2       said method steps further comprising:

3           replicating from a first server an application  
4           referencing said signed agent; and

5           responsive to determining that said signed agent is  
6           scheduled or selected for execution, accessing said  
7           first server to update said store of downloadable cross  
8           certificates and thereafter validating said signature.

1       14. [Currently amended] The program storage device of  
2       claim 13, said method steps further comprising:



3 replicating from a second server a second application  
4 referencing a second signed agent;

5 maintaining a unionized group list store of names of  
6 signatories authorized to execute ~~signed lists~~ signed  
7 agents; and

8 responsive to determining that either said signed agent  
9 or said second signed agent is scheduled or selected  
10 for execution, first accessing the said first server or  
11 said second server from which said scheduled or  
12 selected agent was downloaded to update said unionized  
13 group list store.

14 15. [New] A client system for using security context  
15 elements distributed from a server with respect to  
16 downloadable application code, comprising:

17 a client side rendition of a server application using a  
18 signed agent;

19 said signed agent including signatures specifying name  
20 and corresponding electronic signature of signatories  
21 authorized to use said agent code;

22 a group list store for storing names of signatories;

23 a cross certificate store for storing certificates for  
24 signatories in said group list store;

25 agent execution code for activating said signed agent  
26 dependent upon successful comparison of signatures to  
27 cross certificates;

28 said agent execution code being responsive to scheduled  
29 or on-demand access to said signed agent for first  
30 accessing said server to update said group list store  
31 and said cross certificate store; and

32 said group list store storing the union of names of  
33 signatories authorized to execute agents referenced by  
34 applications downloadable from a plurality of servers.

1 16. [New] The client system of claim 15, further  
2 comprising:

3 said group list store comprising a restricted group  
4 store and an unrestricted group store.

1     17.   [New]   The client system of claim 16, further  
2     comprising:

3           said agent execution code being operable responsive to  
4           authentication of said signature in said signed agent  
5           for determining the execution level allowed and being  
6           operable responsive to failure of authentication of  
7           said signature for preventing execution of said agent  
8           code.

1     18.   9.     [New]   A method for governing execution of  
2     downloadable and distributable signed agents characterized  
3     by security context elements, comprising the steps of:

4           determining that said signed agent is scheduled or  
5           selected for execution;

6           validating a signature in said signed agent against a  
7           store of downloadable cross certificates;

8           executing said signed agent only responsive to  
9           validation of said signature;

10          replicating from a first server an application

11           referencing said signed agent;

12           responsive to determining that said signed agent is  
13           scheduled or selected for execution, accessing said  
14           first server to update said store of downloadable cross  
15           certificates and thereafter validating said signature;

16           replicating from a second server a second application  
17           referencing a second signed agent;

18           maintaining a unionized group list store of names of  
19           signatories authorized to execute signed lists; and

20           responsive to determining that either said signed agent  
21           or said second signed agent is scheduled or selected  
22           for execution, first accessing the said first server or  
23           said second server from which said scheduled or  
24           selected agent was downloaded to update said unionized  
25           group list store.

1       19.   [New]   A program storage device readable by a machine,  
2       tangibly embodying a program of instructions executable by a  
3       machine to perform method steps for governing execution of  
4       downloadable and distributable signed agents characterized

5 by security context elements, said method steps comprising:

6 determining that said signed agent is scheduled or  
7 selected for execution;

8 validating a signature in said signed agent against a  
9 store of downloadable cross certificates;

10 executing said signed agent only responsive to  
11 validation of said signature;

12 replicating from a first server an application  
13 referencing said signed agent; and

14 responsive to determining that said signed agent is  
15 scheduled or selected for execution, accessing said  
16 first server to update said store of downloadable cross  
17 certificates and thereafter validating said signature;

18 replicating from a second server a second application  
19 referencing a second signed agent;

20 maintaining a unionized group list store of names of  
21 signatories authorized to execute signed agents; and

22 responsive to determining that either said signed agent  
23 or said second signed agent is scheduled or selected  
24 for execution, first accessing the said first server or  
25 said second server from which said scheduled or  
26 selected agent was downloaded to update said unionized  
27 group list store.